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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,638	03/25/2004	Yoshihiko Honda	11388-002	6097
23338	7590	09/09/2005	EXAMINER	
DENNISON, SCHULTZ, DOUGHERTY & MACDONALD 1727 KING STREET SUITE 105 ALEXANDRIA, VA 22314			WHITE, DWAYNE J	
			ART UNIT	PAPER NUMBER
			3745	

DATE MAILED: 09/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

SP

Office Action Summary	Application No.	Applicant(s)	
	10/808,638	HONDA ET AL.	
	Examiner	Art Unit	
	Dwayne J. White	3745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>3/25/04, 9/1/04</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

Figures 10-14 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Watanabe et al. (4,478,550). Watanabe et al. discloses a fuel pump 1 comprising a casing 2 and a substantially disc-shaped impeller 13 rotating within the casing, wherein a group of concavities 13a is formed in an upper face of the impeller, another group of concavities 13a is formed in an lower face of the impeller, each group of concavities is formed in an area located inwardly from an impeller outer circumference face by a specified distance, concavities forming each group are repeated in a circumference direction of the impeller, a pair of adjacent concavities is separated by a

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partition wall extending in a radial direction of the impeller, and a pair of concavities in the upper and lower faces of the impeller is communicated, a pair of grooves 14 are formed in a pair of inner faces 11/12 of the casing, each groove extending continuously in a direction of rotation of the impeller from an upper flow end to a lower flow end in an area facing one of the groups of concavities, an intake hole 17 and a discharge hole 15 are formed in the casing, the intake hole passing from the exterior of the casing to the upper flow end of one of the grooves, and the discharge hole passing from the lower flow end of the other of the grooves to the exterior of the casing, an inner circumference face of the casing extends along the entire impeller outer circumference face including the vicinity of the discharge hole, the inner circumference face of the casing facing the impeller outer circumference face and being separated therefrom by a minute space, the groove directly communicating with the discharge hole is displaced towards an outer side of the impeller and gradually grows deeper as it approaches the lower flow end thereof, and the discharge hole is not formed within an area located at an inner side of a region facing the group of concavities of the impeller. A part of the discharge hole at the lowest flow end extends at an area located outwardly from the group of concavities of the impeller (see figure 3).

Claims 1-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Murase et al. (WO 99/07990). Murase et al. discloses a fuel pump 1 comprising a casing 3 and a substantially disc-shaped impeller 22 rotating within the casing, wherein a group of concavities 22 is formed in an upper face of the impeller, another group of concavities is formed in a lower face of the impeller, each group of concavities is formed in an area located inwardly from an impeller outer circumference face by a specified distance, concavities forming each group are repeated in a

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circumference direction of the impeller, a pair of adjacent concavities is separated by a partition wall extending in a radial direction of the impeller, and a pair of concavities in the upper and lower faces of the impeller is communicated, a pair of grooves 35 are formed in a pair of inner faces 5/18 of the casing, each groove extending continuously in a direction of rotation of the impeller from an upper flow end to a lower flow end in an area facing one of the groups of concavities, an intake hole 19 and a discharge hole 20 are formed in the casing, the intake hole passing from the exterior of the casing to the upper flow end of one of the grooves, and the discharge hole passing from the lower flow end of the other of the grooves to the exterior of the casing, an inner circumference face of the casing extends along the entire impeller outer circumference face including the vicinity of the discharge hole, the inner circumference face of the casing facing the impeller outer circumference face and being separated therefrom by a minute space, the groove directly communicating with the discharge hole is displaced towards an outer side of the impeller and gradually grows deeper as it approaches the lower flow end thereof, and the discharge hole is not formed within an area located at an inner side of a region facing the group of concavities of the impeller. A part of the discharge hole at the lowest flow end extends at an area located outwardly from the group of concavities of the impeller (see figure 1). The groove directly communicating with the intake hole remains within an area surrounded by the impeller outer circumference face and gradually grow shallower as it approaches the lower flow end. The groups of concavities in the upper and lower faces of the impeller have through-holes to allow the intake hole to communicate with the discharge hole (See Figure 13).

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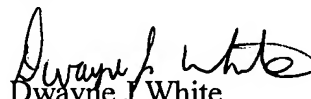
CONCLUSION

Contact Information


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dwayne J. White whose telephone number is (571) 272-4825. The examiner can normally be reached on 7:00 am to 4 pm T-F and alternate Mondays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look can be reached on (571) 272-4820. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Dwayne J. White
Patent Examiner
Art Unit 3745

DJW


EDWARD K. LOOK
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700
9/6/05